

## MULTI-DETECTOR MICROSCOPIC INSPECTION SYSTEM

### ABSTRACT OF THE DISCLOSURE

- 5       Techniques for utilizing a microscope inspection system capable of inspecting specimens at high throughput rates are described. The inspection system achieves the higher throughput rates by utilizing more than one detector array and a large field of view to scan the surface of the semiconductor wafers. The microscope inspection system also has high magnification capabilities, a high numerical aperture, and a large field of view.
- 10      By using more than one detector array, more surface area of a wafer can be inspected during each scanning swath across the semiconductor wafers. The microscope inspection system is configured to have a larger field of view so that the multiple detector arrays can be properly utilized. Additionally, special arrangements of reflective and/or refractive surfaces are used in order to fit the detector arrays within the physical constraints of the
- 15      inspection system.

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